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# NASA Policy Directive

## NPD 8820.2D

Effective Date: July 02, 2013

Expiration Date: July 02, 2018

**COMPLIANCE IS MANDATORY**[Printable Format \(PDF\)](#)

Request Notification of Change

 (NASA Only)

## Subject: Design and Construction of Facilities

**Responsible Office: Facilities Engineering and Real Property Division**

### 1. POLICY

- a. It is NASA's policy to retain only those facilities required to conduct NASA programs, maintain the Agency's core capabilities, and meet national responsibilities.
- b. It is NASA's policy to purchase, construct, and/or operate new real property only when existing capabilities (including those owned by NASA and other external entities) cannot be used or modified cost-effectively. New facilities and additions to existing facilities are to be offset by a greater than equivalent amount of facility disposal.
- c. It is NASA's policy that facilities built and operated to support NASA's mission be planned, budgeted, designed, and constructed in compliance with current Federal laws and regulations.
- d. It is NASA's policy that industry-best practices of sustainable design, maintainable design, building commissioning, and safety and security be incorporated into the planning and execution of facility projects. The use of these practices ensures that facility projects are delivered with the most economical life-cycle cost, least environmental impact, and maximum benefits in occupants' health, safety, security, and productivity.
- e. It is NASA's policy that design and construction activities ensure that project decisions include appropriate features to safeguard the health and welfare of facility visitors, occupants, and equipment against internal hazards or external dangers.

### 2. APPLICABILITY

- a. This NPD is applicable to NASA Headquarters and NASA Centers, including component facilities, and Jet Propulsion Laboratory (JPL) and contractor facilities where specified by contract. Additionally, this NPD also applies to non-NASA-owned facilities constructed on NASA real estate unless waivers have been obtained from Headquarters Facilities Engineering and Real Property Division.
- b. In this directive, all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms: "may" or "can" denote discretionary privilege or permission, "should" denotes a good practice and is recommended, but not required, "will" denotes expected outcome, and "are/is" denotes descriptive material.

c. In this directive, all document citations are assumed to be the latest version unless otherwise noted.

### **3. AUTHORITY**

- a. Compliance With Nationally Recognized Codes, 40 U.S.C., § 3312.
- b. The National Aeronautics and Space Act, 51 U.S.C. § 20113.
- c. Delegation of Authority—To Take Actions in Real Estate and Related Matters, 14 C.F.R. 1204.501.
- d. NPD 7330.1, Approval Authorities for Facility Projects.

### **4. REFERENCES**

- a. NPR 7123.1, NASA Systems Engineering Processes and Requirements.
- b. NPR 8820.2, Facility Project Requirements.

### **5. RESPONSIBILITY**

a. The Assistant Administrator (AA) for Strategic Infrastructure is responsible for formulation and maintenance of this directive, and delegates its responsibilities to the Director of the Facilities Engineering and Real Property (FERP) Division.

b. The Director of the Facilities Engineering and Real Property Division is the Agency's functional leader and authority for the breadth of NASA facility engineering programs, including planning and budgeting, design, construction, maintenance, utilization, and disposal. This authority applies to all real property assets, including land, buildings, structures, technical facilities, and utility systems.

(1) The Director serves in an advisory capacity to the Administrator and works in partnership with the Mission Directorates and the Centers to ensure that Agency facility engineering design and construction activities support the accomplishment of NASA missions, are conducted in accordance with all statutory, regulatory, and fiduciary requirements, and are in accordance with Agency strategic goals.

(2) The Director is also responsible for developing and facilitating adoption of best practices in design and construction. The Director shall:

(a) Establish policies and procedures for NASA Facilities Projects to ensure compliance with codes, laws, regulations, and standards and to implement best practices in design and construction.

(b) Establish a sustainable buildings program.

(c) Provide technical leadership for training in the areas of construction management, design management, and facilities project management.

(d) Determine budget/resource allocation for the Construction of Facilities Program.

(e) Provide leadership and facilitate the adoption of construction safety best practices on NASA facility projects.

(f) Ensure compliance with environmental requirements in the execution of facilities projects.

- c. The NASA Chief Financial Officer, or designee, is responsible for ensuring that budget planning, advocacy, development, allocations and proper accounting procedures are in place prior to acquisition of design and construction of facilities.
- d. NASA Program/Project Managers are responsible for developing Business Case Analyses of Project Infrastructure and gaining approval of business cases by cognizant Mission Directorate AA and by the cognizant Headquarters Mission Support Office AA or designee.
- e. The Mission Directorates are responsible for validating Directorate Program facility requirements, planning, budgeting, and resource allocation.
- f. NASA Center Directors are responsible for the execution of all facility projects at their Center. NASA Center Directors, with the concurrence of the Director of the Facilities Engineering and Real Property Division, shall designate a Center official exercising project technical approval authority over all facility projects at the Center.
- g. Center officials exercising project technical approval authority over facility projects shall:
  - (1) Approve facility designs.
  - (2) Ensure compliance with codes, laws, regulations, NASA standards, NPR 7123.1, NPR 8820.2, and facility strategy and master plans.
  - (3) Ensure timely notification of Agency management and facility stakeholders of facility projects through the budgeting and operating plan process.
  - (4) Establish a Sustainable Building Program for the Center.
  - (5) Ensure facility personnel have proper training and experience.
  - (6) Ensure all projects comply with environmental requirements.
  - (7) Ensure all facility projects are executed in a safe manner.
  - (8) Ensure the Center facilities program is executed in accordance with this policy, as well as Center-approved Master Plans and Agency strategic direction.

## 6. DELEGATION OF AUTHORITY

Directors of NASA Centers may delegate the responsibilities in section 5.g as described in section 5.g (1).

## 7. MEASUREMENTS

- a. Performance assessment of the design and construction process will be accomplished through annual self-assessment reports from each Center. Centers shall submit assessment reports to the Director, Facilities Engineering and Real Property Division, by the date as required in NPR 8820.2, Facility Projects Requirements.
  - (1) The report shall include metrics, as outlined in NPR 8820.2, Facility Project Requirements, relating to the scope, schedule, budget, and quality of design and construction services rendered during the previous fiscal year.

## 8. CANCELLATION

NPD 8820.2C, Design and Construction of Facilities, dated June 13, 2006.

**/s/ Charlie F. Bolden**  
**Administrator**

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**ATTACHMENT A: (TEXT)**

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